November 1985

THE IDAHO IBM-PC USERS GROUP NEWSLETTER

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Idaho IBMPC Users Group
P.O. Box 9136
Boise, ID 83707

Idaho IBM-PC Users Group Newsletter

NEXT   MEETING

Date : Tuesday, November 12
         (the second Tuesday)

Time : 7:00pm

Place: Borah High School
        : B-Wing Room 126

IN THIS ISSUE

LOTUS SIG #2

Tim Wolf will conduct the second in his series of LOTUS Seminars on the last Tuesday in November, at 7PM. Again, the meeting will be held at **DECISION POINT** and will last approximately 1 1/2 hours. The first session was highly regarded by those in attendence, and I believe that everyone managed to increase his/her grasp of Lotus somewhat.

The content of the next Lotus meeting includes Macro's, Formulas, Array Processing, and IF formulas. This session assumes that you have an understanding of basic Lotus command syntax.

DISKETTE PRICE CHANGE

Since we've been able to reduce our costs on Nashua DSDD diskettes, we're going to pass on some of the savings to our members. Effective with the current order, we will be dropping the price on our diskettes to $1.20 each. We are also looking into some type of volume rate for those of you who purchase your diskettes in batches of 50 or greater. Believe it or not our greatest difficulty, to this point, has been in keeping enough of these fine diskettes in stock to meet your demand.

OCTOBER'S MEETING
By Richard Chambers

The October meeting played to a nearly full-house. Due to some unfortunate last-minute forgetfulness I arrived, about ten minutes late, to a chorus of hisses and boo's from those who had managed to get there on time. Group business was quickly dispatched, then we proceded into an interesting and informative demonstration session.

I always enjoy watching an expert at work, and Tim Wolf's demonstration of PC STORYBOARD was supurb. After the Storyboard presentation, a short discussion was held on file management programs. This was followed by a stimulating question/answer session.

During this session; Bob Flagg, our graphics Guru from **LEARNED & MAHN** here in Boise, volunteered to give us some insight into the making of one of these file compression programs. (This demonstration will be one of the features of our November meeting.)

THE LIBRARY CARD
Written by Rich Chambers

The subject of this months column is PC-File III, Version 3.0, from our prolific old programmer friend, Jim Button. This database program is a new addition to our library, and if you thought that PC-File was a good package, I'm sure that once you have tried this new version you will convert to it.

In PC-File III, the same simplicity of use which made PC-File such a standout has been preserved. The program documentation is included upon the disk in the form of a 40+ page (evaluation) manual, however, if you choose to become a registered owner, (the recommended procedure); the author will mail you an extensive users manual, provide telephone and mail support, as well as updates to the program set as they become available.

One of the first things we did when we received the package was place our member list on it. Are we satisfied with the program? You bet!

Here are some of the new features:

1. Screen output speed has been increased.

2. Number of records possible has been increased to 32767.

3. A new "wildcard" character function has been included for fast database searches.

4. Snapshot labels. A mailing label may be instantly created for the record presently on the screen.

5. The new package uses all available memory for files and sorting operations.

6. Search speed had been improved.

7. PgUp and PgDn keys are now useable for record browsing.

8. Macro keys may hold as much as 300 characters.

9. A transposing feature has been provided to allow printing of fields in reverse order. "Smith John" becomes "John Smith"

10. Mailing label sheets may now be printed and either auto fed or hand fed to your printer.

11. The package has been further integrated to provide greater ease of operation.

I have enjoyed using PC-File III, and recommend that any of you who are seeking a simple to learn and easy to use database package take a look at it. Our evaluation copy of PC-File III is Applic25 in our PD software library, and is well worth adding to your own personal software library.

OCTOBER'S MEETING
(continued from previous page)

After general questions were fielded, we moved into our Random-Access session for the rest of the evening. This portion of our meeting, where we are able to talk with other members about their computer interests, projects, and problems, is always the most satisfying for me.

If you need help with a problem, and the next usergroup meeting seems like years away, you can stay in touch with us through the Gem State Data Access BBS at 375-2243.

THE QUERY COLUMN

Mail your Question(s) to:

The Query Column
P.O. Box 9136
Boise ID 83707

Query:

I have written a short program in BASICA to print out a report on my Epson MX80 printer. My problem is this: How do I get the report to the printer in 132 columns. No matter what I do, it prints in 80 column mode. I know nothing is wrong with my printer because I can set it to 132 columns from DOS.

Boise

Return:

Have you looked at the WIDTH command which is available in both BASIC and BASICA? This command allows you to set printer width at LPT1: ,LPT2:, LPT3:, COM1:, or COM2:. For your printer, the MX80, you should use a statement similar to this for 132 column Mode:

20 WIDTH "LPT1:", 132.

This assumes that your printer is addressed as LPT1:. If you are using a different printer port, you will have to set the WIDTH statement accordingly. As shown above, this command will set the MX80 printer to compressed (132char) mode until a consecutive WIDTH command changes it.

Note: The WIDTH command has other functions. See the IBM BASIC 3.0 Manual, Ppg. 366-369.

Rich Chambers

Query:

I am new to computing and have seen references to Modems and BBS's in the Newsletter. Can you tell me something about these items?

Boise

Return:

The Modem is a translating device. It is able to translate computer generated data into electronic signals which may be transmitted over the phone lines to a different modem-equipped Computer, where it is again translated to computer generated data. Thus, a file used in your computer may be sent to another computer in much the same manner as we copy a file from drive A: to Drive B: using the DOS COPY command. In technical terms, your computer data is modulated, transmitted over the phone lines in this electronic form, then, upon reaching the destination modem it is demodulated and returned to a form which the computer can read. The name "MODEM" comes from MOdulator-DEModulator.

Generally, some sort of terminal software is utilized in order to maximize the modem's efficiency and make file transfers somewhat simpler for the computer operator. With the right terminal software, you are able to communicate with nearly any Mainframe, Mini, or Personal-sized computer. (See the review on PC-TALKB by Allen Powell, in last months Newsletter, or the IBM Personal Communications Manager product review in this issue.)

A BBS, sometimes called an EBBS, is a Message/Database center which may be accessed by the modem. These BBS's are often specialized in nature, but may be thought of as electronic message and information centers. You may normally call these modem-equipped computers and transfer information from the BBS to your computer, or vice-versa. Some of these services are still free, however, many have found it necessary to begin charging a small fee in order to keep their EBBS "on-line."

MORE EFFICIENT STORAGE FOR YOUR 20 MEG. HARD DISK
Written by Judy M. Robinett

One of the advantages of the Dos 3.x series is their ability to allocate the 20 meg. hard disk memory into 2k clusters versus DOS 2.x's 8k clusters. To setup your hard disk for 2k clusters follow these steps:

** C A U T I O N **

The following steps will completely erase all the data from your hard disk. Prior to performing these steps, be sure to **back-up** all files on the hard disk which you wish to keep. When you are done, it will be nessary to copy your data back on to the hard disk. If you do not understand these procedures, you should first talk to a more advanced user.

1. First check to see how your hard disk is presently formatted.
   a. Run Norton.com from NORTON UTILITIES.
   b. Press "F1".
   c. At Menu 1, press "F1" to Select a Disk Drive.
   d. Enter "c" for Hard Disk.
   e. Press "ESC" key.
   f. Press "F2" key.
   g. Press "F2" for Disk Technical Information.
   h. Toward Bottom of information read where it states that each cluster is XXXX bytes. If XXXX = 2,048 then you don't need to proceed. If XXXX = 8,192 then continue with the reformat of your hard disk.
   i. Exit the NORTON UTILITIES.
2. To get 2k cluster size:
   a. Run WIPEDISK.COM from NORTON UTILITIES by typing WIPEDISK C:. NOTE:This will take at least 10 minutes.
   b. Put DOS 3.1 in Drive A and reboot computer by turning it off, wait 1 minute, then turn it on again.
   c. Create Dos partition with FDISK.COM. NOTE: Partition the entire disk.
   d. Enter time and date so that the format shows todays date.
   e. Type FORMAT C:/s/v
   f. When complete, rerun Norton and check for 2k cluster size. NOTE: Repeat step 1.

If you keep a great number of small programs on your 20 meg hard disk, you may recover as much as 5 megabytes of disk space using this process. A marked improvement!

Another item to consider is this: once you have changed to the DOS 3.x format, DOS 2.x disks booted from your A: Drive will not recognize the hard drive. They are not able to read it's File Allocation Table (FAT). If many of your favorite Floppy-disk based programs cannot be upgraded to DOS 3.x, you might give serious thought to remaining with the somewhat more inefficient 8K clusters.

THE QUERY COLUMN

Almost all have a password based log-on procedure. You register, pay your fee, and are then set up with your own password. From that point on, you are able to call and use your password to "log-on" to the EBBS. In addition to a Main Message Board, some have Special Interest Groups (SIGS) where you may communicate with others sharing a particular interest, i.e. Politics, Computer systems, software use, cooking and stock information, just to name a few. The Super BBS's such as The Source, Compuserve, and Dow-Jones Information Retrieval, have a incredible amount of information available to their subscribers. Of course, having all this additional information at your fingertips raises the cost. (**Compuserve**, for instance, costs up to $10.00 per hour during lowest-cost hours.)

A Review: Nutshell
Written by Allen Powell

Data base programs. Ugh! Hard to learn, difficult to use, and expensive or so I believed until, through **R & L Data's** generosity, I was given Leading Edges's program Nutshell to review. Now, after a few hours of use, Nutshell has dispelled all my preconceived notions.

Nutshell comes boxed with a manual, keyboard overlay for the IBM-PC, and a demonstration disk. The manual is adequate, it contains just enough information to explain the various facets of the program in sparse detail and without meaningful examples. Luckily, Nutshell's menus, online help screens, and prompts allow you to relegate the manual to a seldom needed reference book. The keyboard overlay is a joke. It's an impressive piece of card board, but I believe with really only six key's functions to remember it will be best to keep in the box with the manual where it won't get wrinkled. The demonstration disk will soon end up in the box too. I call it a demonstration disk even though I believe Leading Edge would like you to think it to be a tutorial. Sure, it shows you most of the functions used by the program, but your duty is to just sit and watch what's on the screen occasionally typing in words or hitting keys EXACTLY as prompted. Just try to make a typing error or hit the wrong key.

Nutshell is organized as a series of screens. Each screen has a header with a title is and a menu bar on the 25th line listing the functions that are available. Also displayed are the two keys whose function is constant in every screen in the program; F1-Help and F2-Menu. Pressing F1 at anytime will reveal a help screen briefly describing the functions available in the present screen and page numbers in the manual for further reference if needed. F2 takes you to the menu line a the bottom of the screen for command selection. To select a command you may use the cursor keys to move left or right along the line to the desired action or you can just type the first letter of the command word and move directly to it, in either case, hit the enter key and you're on your way. A third method of command selection is available to speed things up after you've familiarized yourself with the commands. You can just hit the Alt key and the first letter of the needed command to get the same results as above.

The main screen of the program, the first you'll see upon entering the program, is the Browse screen. If you specified a file at start up the first record will be displayed, if not you will be directed to the Define Fields screen to do just that; define the fields that will make up the records in your file. After defining the fields, which can be text, number, calculated, summary, or date, you move to the Layout screen to set up a form or forms which will be used to display the data that will be entered into the data base file. The same form(s) will also be used for entering data, searching for specific records, and for printing.

The Layout screen is a delight to use. It is basically a full screen editor which makes setting up the form(s) a breeze. When you initially enter the Layout screen, after defining your fields, a list of the field names and their default lengths, represented by a row of dashes, is displayed in a column. The fields may be reshaped, moved around the screen, highlighted in various colors, or hidden if you

NEW ITEMS ON THE MARKET
Written by Mark McNee

New printers from IBM:

The **Proprinter** is a 200cps dot matrix printer with three different print modes (Draft, Text, and Near Letter Quality). This printer has a comprehensive character set, all points addressable graphics, and the ability to meet most any need.

The **Quietwriter** II Supports all the features of the **Quietwriter** I, and also gives all points address-able graphics. The graphics com-mands of the **IBM Graphics Printer** is also supported by the **Quietwriter** II. This gives you letter quality text and graphics from the same IBM printer!!

New Lotus 1-2-3 Release:

Lotus 1-2-3 Release 2 is scheduled to reach the market sometime this Fall. The new Lotus will support expanded memory (Intel's Above Board) as well as a larger Spread-sheet size (8192 rows by 256 Columns). Also supported is im-proved memory management and up to four megabytes of memory. In addition, many other enhancements are to be included in this new release.

Upgrades will be available directly from **Lotus Development Corporation**. To upgrade, make sure that your registration sheet has been sent in to Lotus. You will be receiving information directly from Lotus about upgrading. Call your sales representative if you have any questions about 1-2-3 and the new release.

YOUR BBS

Our group maintains the Gem State Data BBS IBM-PC SIG. There are about 50 programs available for downloading. Data line 375-2243.

A Review: Nutshell

don't want them to appear on this particular layout. Anything that is typed on the Layout screen becomes part of the form so you can make the form look exactly the way you want. (form letters would be a snap!) Nutshell allows you to make as many Layout forms as you want for a data base, so you could make one form for entering the data and several others for displaying it in the Browse screen. The Layout screen is also where you define how the records will look when printed by choosing the partition option from the menu at the bottom of the screen. A sub-screen is invoked that allows you to choose which part of the current layout will be the header (printed at the top of each page), the body (printed once for each record), or the footer (printed at the bottom of each page). A page number can be printed by placing a # sign any place in a footer. Nutshell supports most of the popular printers and page length, line length and pitch can be specified.

After the fields and layouts are defined, data is entered by moving to the Browse screen and selecting the Add command, the cur-rent layout is used as an entry form. Record sorts and searches can be made on any field or combination of fields from the Browse screen along with record deletion and modification.

Nutshell, unlike some other data base programs, is not bound by memory size. File size is limited only by external storage. Other notable features include continual automatic updating of file changes to disk to prevent loss of data and file conversion to and from several other data base formats and ascii.

MORE BITS FOR YOUR BUCK
By Bob Flagg

It seems almost axiomatic that, regardless of how much disk memory a computer system has, it is never enough. In fact, despite the fact that every computer I have ever used has had a hard disk, I can't recall not always being strapped for disk space. The obvious solution is, of course, to back up all your non-essential files to floppies or tapes. So, I dutifully go through all my subdirectories only to find that ALL of my files are vital and I just know I'm going to need them tomorrow. Even if you don't have a hard disk system, maintaining a large library of files (like the IBMPCUG library) can be an onerous - if not down right expensive - task.

Well, fortunately for the disk swapping weary, there is a tool that can greatly reduce the amount of disk space a file occupies. Generally programs that "compress" a file's size are called data compression programs. Now, all kinds of data stored on magnetic media may be compressed; non-document text, document text, graphics information, and some database files are examples of compressible data. Machine executable files can be compressed, but because I wouldn't do it, I'm not going to talk about it. File compression, however, can not be recommend without some very important caveats which will be explained later.

The theory and implementation of data compression programs are inseparable from the world of statistical mathematics. Fortunately, little understanding of probability is needed to fully grasp how these programs work. But, before data compression can be understood, how a computer stores information must be understood. If you were able to look at a file in an "untranslated" way you would see a bunch of 1's and 0's - the building blocks of computers as we all know. However, because most humans are not very adept at reading 1's and 0's and translating them into characters, the computer does this translation for us. The algorithm the computer uses to translate this data is to "grab eight bits", look up the bit pattern and then display a human readable symbol on the output device. Thus, with 8 bits with parity an alphabet of 128 characters may be created.

If we have a finite alphabet - as we do - it is possible to use a different algorithm to store and retrieve our data. This new algorithm is called a Huffman Code and is the basis for most data compression programs. With the normal "grab eight bits" algorithm, each letter in our alphabet requires 8 bits. If we can reduce the number of bits needed for each letter, then we can reduce the size of a file. This is what Huffman codes do. For the moment, let us assume we can reduce the number of bits needed for each letter. What letter would we want to use the fewest number of bits? That's right! We would want the letter with the highest probability to require the fewest bits. In most text files, this letter happens to be the blank. But for our example, let us assume we have a five letter alphabet with some given probabilities.

(fig. 1)

Symbol	Probability	Code 1	Code 2
a	.12	000	000
b	.40	001	11
c	.15	010	01
d	.08	011	001
e	.25	100	10

Note that for this alphabet, we are

using a "grab three bits" algorithm for code 1. In code 2, however, some of the letters only require two bits. Notice also that the letters with the highest probability are the ones that use two bits. Code 2 may be encoded into a sequence of 1's and 0's so that no code for a character is the prefix of the code for any other character. This is called a prefix property and it can be decoded by repeatedly deleting the prefixes.

For example, if we encounter a string of bits 000001010 and decode them using Code 1, we can see that the string of bits represents abc. With code 1 we just slice up our string into groups of 3: 000 001 010. However, if we use code sequence 2, because our bits are of different lengths, we cannot just divide them up into groups of three. Rather, we need to start at the beginning and scan the bits until we get a bit string that we can recognize. For example, if we decode the bit string 0001101 we can see that the first three bits, 000, must stand for the letter a, the second two, 11, must be b, and the last two, 01, must be c. In essence, the algorithm is: repeatedly grab 1 bit until you get a valid letter, then remove those bits and start over. Notice that by using the Huffman code 2 we were able to represent the same three letters as in code 1, abc, and it took two fewer bits!

Now, the above example is obviously a small alphabet. With a little imagination we can see how the alphabet could be extended to include the 128 ascii characters or 256 characters possible on a PC. Such an alphabet would have some letters which are less than 8 bits, and some which are more. That is, the letter "a" might be two bits

long while the letter "z", with a far lower probability, might require eighteen bits.

While these data compression programs are quite nifty, there are a few things any user of such a program must be aware. If you tried to look at a compressed file with your word processor you would see absolute garbage on your screen. This is because the file is now a binary file, not an ascii file. This has important ramifications. If you have a normal ascii file and a data error occurs causing one of the bits in the file to change, at worst, one letter in your file will change. If, however, you have a compressed file and such a data error occurs: because everything in a binary file depends on what came before it, all of your data beyond that one trashed bit becomes garbage. This problem could be fixed by a person familiar with DEBUG. A far worse error can occur if a disk sector becomes lost. With a normal ascii file it is always possible to do a "text search" for your lost cluster; If a file has been compressed, the text search capability is lost. Thus, if the files you are compressing are of some great importance, you should have an additional backup of the file. But, if you compress a file by 50% then make an additional copy of the file, have you gained anything? Yes, you have. Because you now have two copies of your file for the price of one!

Alas, time and space are short so I must cut this article off a little sooner than I had hoped. The second part of this article, how to construct a Huffman code using the Huffman algorithm, will be presented at the next meeting. In addition, I'll show you how this algorithm

The Big Picture
Written by Bob Flagg

Things never go as planned. I generally try to avoid making such sweeping statements, but I feel rather comfortable making that one. I had hoped to present this month's graphics article on graphics information storage. Unfortunately, three very important events occurred which prevent me from doing so. One, the data compression article was a bit long winded. Two, I realized that what I really wanted to write may have been a little too advanced, i.e. I haven't yet gone over the basics. And, three, I went to Sun Valley last weekend and drank far too much beer, spent far to long in the jacuzii, and had entirely too much fun.

Despite the pangs of guilt fostered by the editorial staff of the IBMPCUG, I have decided to change my graphics article at the last minute. This month I want to present you with a simple glossary of graphics terms I feel one must understand before any more complex concepts can be dealt with. While they are a bit terse, they cover the basics. Anyone desiring more information will have to wait till the next article where I will list what I feel to be a good bibliography of graphics books and articles. Just as soon as I can remember where I parked my car in Sun Valley...

PIXEL. This term stands for "picture element". They are the little dots on your CRT.

RESOLUTION. Resolution is simply the number of pixels - both vertical and horizontal - on your CRT or other output device. The resolution of the IBM PCs range from a low of 320x200 pixels to a high of 640 x 400. Additional color cards are available to achieve even higher resolution.

EGA. Enhanced Color Graphics Adapter (IBM) a.k.a Equally Gross Addition to the IBM PC line. When combined with the Enhanced Color display produces stunningly average graphics at a price that's only about $1,000.00 too high.

RGB. Red-Green-Blue. This designates a type of monitor. There are essentially two types of monitors, RGB and composite. RGB monitors produce a fine resolution but do not have the color range or flexibility of a composite monitor which can also be used as a T.V.

RASTER. A raster is a single line of pixels on your screen (usually the horizontal lines).

VIDEO MEMORY. This is a special type of computer memory that is separate from main memory. On the better graphics systems, this memory is dual ported, i.e. it can be written to at the same time it is being read. The advantage of video memory is that it is dedicated to a single task - changing and displaying a graphics image.

CLIPPING. When an image is displayed on a graphics output device and all of the image cannot be displayed on the screen, the image is "clipped".

BIT MAP. IBM does not do this. But those of us who have machines that do (like Macintosh and AT&T 7300) are having a lot of fun.

REAL TIME. When talking about graphics, "real time" refers to the ability of a machine to display animation. Good, real time animation on a computer requires that the computer completely refresh the entire screen at about 24 frames a second. This type of performance is

PERSONAL COMMUNICATIONS MANAGER
A REVIEW by: Rich Chambers

Personal Communications Manager, (PCM) is a fairly recent entry into the PC communications market from 'BIG BLUE' himself. The product for this review comes from **R & L DATA SYSTEMS** here in Boise. Due to their generosity, we are able to examine this package and report its features to you.

First, some vital statistics. The package comes to you on one DSDD diskette and includes an extensive, easy to understand manual. Equipment required for use includes: 128k memory, at least one disk drive, and of course, a modem. The Software supports color, monochrome, 40 and 80 column screens, and an assortment of modem types.

In order to get the best from this software, however, an auto-dial/autoanswer modem is suggested. Although the documentation indicates that the programs are designed for the **IBM PC** family only, I used this software on the **LEADING EDGE** Model D computer with a **VenTel** internal modem, and it functioned perfectly. We then tried it with a **Tandy 1000**. The program booted properly, however, because of the non-Hayes compatibility of the TRS modem command set, we were unable to get the Terminal Emulator and this particular modem to handshake. (Use of this modem would require you to construct or buy a different modem driver.)

Who is this package designed for? Because of its numerous functions and varied electronic mail capabilities, the package seems to favor the small businessman or franchise owner. Of course anyone could utilize the features provided in this package, and yet, how many of you home/hobby users would benefit from the ability to mass-transmit a document to 40 separate remote computers at 1 AM--while you were sleeping snug and warm in your waterbed?

Now, let's talk about the software. This package consists of two main applications; the Terminal Emulator, and the Electronic Mail Manager section.

The Terminal Emulator is essentially a communications package. This application allows you to configure your equipment to communicate with other computers. It supports 110--9600bps operation, and operates in much the same fashion as **PC-TALK**. (In fact, the ALT key has many of the same functions in this package as it has in **PC-TALK**.) Also available is an extensive and easy to learn Macro set which may be utilized to 'one-key' many of your communications chores. In this Macro set, one macro may call another macro which, in turn, may call yet another, etc.. Macro's are stored on FKeys 1-10. You may transmit and receive both text and Binary files, however, this package is one of the few which does not support the XMODEM protocol. The software does have an error checking protocol of its own, but this protocol operates only with other terminals utilizing PCM or level 2 of the **Microcom Networking Protocol**. The absence of the popular XMODEM protocol was a surprise.

As you might expect, the Electronic Mail Manager handles all aspects of File management, from building mailing lists and message files to deleting unwanted messages. One neat and unusual aspect is the 'use the word processor you want' feature. You may select the text processor you are most comfortable with, and call it from within the

Electronic Mail Manager
(continued from previous page)

Electric Mail Manager to perform your text message chores. Upon completion, program control is automatically returned to the Electric Mail Manager. As previously mentioned, you may select a single file to be transmitted to many remote computers, or many files to be sent to one or more computers. These actions may be completed as you sit in front of the equipment controlling every function, or in an **unattended and automatic mode** at some prearranged time. If the line is busy, PCM will continue calling every 15 minutes for up to nine times before it proceeds to the next number in the queue. Overall, the program is smooth to operate, with easy to understand menus and instructions. Anytime you become lost or confused, a tap on the ESC key will return you to familiar territory.

To get you started using the package, **IBM** has included a tutorial package in the operations manual. This tutorial assumes that you know nothing of telecomputing procedures, and guides you through the operation of both the Terminal Emulator and Electronic Mail Manager applications. I attempted to approach the tutorial with the demeanor of one who had never used a communications package before and, while the tutorial once left me wondering how they had reached the present step from the previous one, overall, it was easy to read and quite informative.

In all, this is an easy to learn and operate program set which may be of considerable value to both hobbyist and business users alike. The Electronic Mail Manager can automate both incoming and outgoing electronic file chores. Thus, we may utilize our computer when it is more convenient to us instead of being forced to perform communications

tasks prior to the end of the business day. You just set it and forget it.

PCM is not copy protected, however, you cannot use a copy of the program to call another copy (or the original) of the program. This means that if you have several computers and you wish to run this package on them simultaneously, you must buy a separate **Personal Communications Manager** set for each of them. The package is competitively priced at $99.95 (your User Group discount makes this price even more attractive), therefor, multiple computer use expense is not overwhelming.

D I S C O U N T S

The following individuals and local merchants are offering discounts to all **registered** members.

Entre' Computer Center is graciously offering a firm 15% (and even up to 20% depending) discount on ALL stock in the store.

CompuShop is offering a 10% discount off the normal CompuShop retail price on **all** stock to registered IPUG members.

Bruce Burns (R&L Data) is personally extending a 15% discount off everything in the store, except the AT line, to all registered members. Note: you must deal directly with Bruce.

Borbaki Inc. will sell their Directory Command System called 1Dir (pronounced wonder), which normally retails for $95, for $75 to club members. Thanks to Chris & Cindy.

COMMUNICATIONS CORNER
Written by Mike Hayhurst

Are you confused? Is the communications hassle getting you down? Are you over come with buzz words like BISYNC, ASYNC, COM1, COM2, IRMA, SDLC, QMODEM, XMODEM, CROSS-TALK, PC-TALK, SMARTCOM, UPLOAD, DOWNLOAD, and many more? It can be a little too much to digest in at one time.

Yes it is confusing to say the least, but you need not fear. The folks at the PC-USER group are here to help make it a little clearer. Last month we had a very good article on PC-TALK. It is one of my favorite ASYNC communications programs. One of the things that makes it so good is that it is so simple to use. This is what we would like all software to be.

When we consider a piece of software for communications we should have some basic goals in mind. Then keeping the basic goals as the key to any purchase decision, we keep ourselves from being confused and bewildered. For the most part, we want to allow our PC to communicate with another PC or a HOST computer. The other computer may dictate the requirements to which communications software you use, but in most cases you only need to follow some specific communications standards and rules. The choice of programs is yours, since most programs follow these rules.

There are two basic things we look for in a communication software program. First, is the ability to talk to the other end, that's the easy part, and the other is to do file or data transfer to and from the other PC, or HOST computer. This is what makes PC-TALK so neat! It does both of these very well and is very simple to use. The major key here is simple. All the other bells and whistles are not worth much if they are too confusing to use. Besides, the price is right.

It was once said that if you want to get rich, all you have to do is build a better mouse trap. It is hard to think that any one could improve on PC-TALK to any great extent, but the boys from the FORBIN-PROJECT have come very close. I am referring to a new program call QMODEM. IT is very simple to use and is more efficient in file transfer than PC-TALK. It is not to say it is the right program for every body, but it is worth giving a try. I myself still use both, since the both have strong points that I like for given task. One thing for sure either one will have most,if not all the needed bells and whistles, and still not be confusing. The price is hard to beat also, FREE.

I will try to cover QMODEM in detail next month, but for now I would like to bring you attention to a very important matter. I normally don't stand on soap boxes and wave political banners, but since it is election time and this is a matter that concerns us all, I make this exception. The following article of Chip Berlet is worth the time to read. If you like to putter around in BBSs like I do it is worth the time to fill out the letter and send it to you congressmen.

From Chip Berlet,
Public Eye Magazine.

HELP FIGHT BAD BBS LAWS - 01
FEDERAL LEGISLATION RESTRICTING
BBS OPERATION DUE SOON!

POST THIS MESSAGE ON EVERY
BBS IN AMERICA!

A new federal law that would outlaw some BBS systems and severe-

ly restrict all others could be passed by Congress in 1985. A mobilization of SYSOPS and BBS users is urgently needed to ensure we have a chance to speak out on the new law.

Watch BBS's for messages with "BBSLAWXX.MSG" headers or "HELP FIGHT BAD BBS LAWS - XX" titles. An ad-hoc group will be posting these messages on BBS's and the commercial systems. LAWMUG SYSOP Paul Bernstein and I have learned the law could be introduced very soon! Although aspects of the new law have been discussed for months by "experts" in Washington, NOT ONE SYSOP WAS CONSULTED until a June 20 conference in Chicago which Paul and I attended.

Vague language in another telecommunications law already introduced in Congress might also restrict BBS activities. We urged the Congressional aide involved in that legislation to exempt BBS systems until we could let SYSOPS and lawyers study the language more carefully. We must also monitor this law.

The law restricting BBS operations was prompted by panic over the possibility that children (minors) might read pornographic material, and by the wave of publicity regarding the malicious hackers and illegal credit card and phone information posted on BBS's by electronic graffiti vandals.

Among the ideas SERIOUSLY DISCUSSED for the new federal law restricting BBS's are provisions which would require:

* Registration of all BBS's as a public utility.

* BBS users to log in with, and post their legal names.

* SYSOPS to keep a log of all names of users.

* SYSOPS to keep a log of all messages & access times.

* Criminal penalties for SYSOPS whose BBS's contents had illegal messages posted on them even if the SYSOP was not aware of the message and had not been informed the message was there nor given a chance to remove it!

While the law is currently only being discussed, there is much pressure to restrict and regulate BBS's. A good BBS law could protect BBS's and SYSOPS. A bad law could destroy BBS's in their infancy as a telecommunications phenomena.

BBS's put the individual back into mass society in the age of telecommunications. BBS's encourage information sharing and remove barriers to discussion posed by social status, wealth, class, race, sex, physical size, and many physical handicaps. BBS's encourage the democratic process and are a powerful new communications system which deserves Constitutional protection and First Amendment Rights.

NO LEGISLATION WITHOUT REPRESENTATION!

There will be differing views of wording, law, and tactics; all should be given a chance to be heard. Congress should delay passage of any BBS legislation until BBS users and SYSOPS have a chance to discuss the legal issues and make their opinions known in a series of Congressional hearings. Our discussion must start immediately and we must organize to block bad BBS legislation until our voices are heard.

COMMUNICATIONS CORNER
(continued from previous page)

We share the responsibility.
Time is short. Spread the word. It
is the electronic age. We are all
Paul Revere....

The **letter on the last page** is
to be copied & addressed to your two
SENATORS and CONGRESSMAN. If you
have any interest in preserving your
freedom of speech, I strongly recom-
mend you sign and mail out copies of
this letter.

Spread it around to all the
friends - only a flood of letters
to CAPITOL HILL will protect us from
reactionary laws!

* * * * * * * * * *

Well folks I have used up
enough paper for now and enough of
your time, but please take the time
to fill out the letter and we will
be talking to you next month about
QMODEM, its really great!

MORE BITS FOR YOUR BUCK
(continued from page 8)

may then be used to construct a
spelling checker.

Brain teaser: If we have an ascii
file with 100 letters in the file
we know that the file will be 800
bytes long. If the file is com-
pressed, what is the formula to
calculate the probable length of
the file after compression?

Answer: The probable length of
the file will be the number of
characters in the file times the
average length of the character code
sequence. The average character code
sequence is the total number of
bits for all characters divided by
the number of characters in the
alphabet.

Review: Nutshell
(continued from page 6)

Nutshell is not, as the preten-
tious statement on the manual cover
claims, "All Ye Need Know". It does
not have all the bells and whistles,
flexibility, or the speed of some of
the better known data base programs,
i.e. DBASE III,R:base 5000, but
neither does it have their difficul-
ty of use and price. Nutshell can be
found locally for well under 80
dollars and don't forget the club's
discount at R & L Data and other
shops. All things considered,
Nutshell's ease of use, features,
and price make it an excellent prog-
ram for home users who will probably
never need to exceed this programs
capabilities.

Nutshell requires: 256K, one
disk drive, monochrome or color
monitor (looks real nice in color).
It is not copy protected.

Have a nice Thanksgiving!
Allen Powell

Graphics: The Big Picture
(continued from page 9)

generally beyond the average PC.
But not for long.

PGA. Professional Graphics Adapter.
This is the "professional" version
of the EGA. It costs more.

ECD. Enhanced Color Display (IBM).
I use one of these. It has a little
knob on the front that, as far as I
can determine, doesn't do anything.
It has a rather funny notion of what
the color yellow looks like.

Many members of our group are compu-
ter professionals. If you need help
chances are there is someone here
who can help you. We have consul-
tants who offer discounts to group
members.

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=           CLASSIFIED                 =
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** FOR SALE **

128K memory (2 64k sets) for IBM PC or compatible computer. $25.00. I've upgraded my new computer to 640k, and had to use 256k sets. Also have two Printer Ribbons for a Tandy DWP 210 Printer (still in the Box). Will sell for $5.00 each. Will also consider trade for IBM software.
Call Paul at 384-1022.

COMPUTERLAND LEARNING CENTER

Member Mark McNee of **Computerland** advises us that his company has opened a new Learning Center adjacent to the store. According to Mark, who will operate and manage the center, scheduled classes will include:

1. Intro to Word Processing
2. Intro to Apple IIe/c
3. Intro to IBM(MS-DOS)
4. Intro to Accounting
5. Intro to Apple MAC
6. Intro to Database
7. Intro to DOS
8. dBASE III
9. Advanced Lotus
10. Beginning Lotus
11. WordPerfect 4.0

A computer will be available for each class member, or you may bring along your own equipment. Members of our Group will receive a 25% discount from regular course costs. You must, however, show your Blue Membership card in order to receive this discount. If you are interested in any of these courses, Contact Mark at 344-5545.

****** WANTED ******

Looking for an AST Six-Pac with 64K memory or less. Game Port not required. Contact Rich Brown at 386-5506 Days, or 322-7720 evenings.

IMA
Innovative Micro Assistance

Personal Computer Consulting and Software on Apple, IBM, CP/M, and related Micros. FREE Initial Discussion Session. Group members receive 10% off my customary fee. Contact:

RAY BOWYER (208) 345-2245
P. O. Box 2816 Boise, ID 83701

** FOR SALE **

HP-150 Personal Computer With "Magic Touch" Screen, 256K, 2 SSDD Disk Drives, 160 CPS Graphics Printer. Includes PAM & BASIC. New Condition, used less than 6 hours asking $3400. Contact Gregg, 922-5664 (Kuna) or at the meetings.

*** FOR SALE ***

For the IBM or compatible:
1. FAST GRAPH PKG $35.00
2. HOME ACCT. PLUS   25.00
3. PERFECT CALC   35.00
4. PERFECT FILER   75.00
5. PERFECT WRITE/SPELL   85.00
6. PERFECT LINK   20.00
7. VOLKSMODEM 12 300/1200 210.00
8. IBM SERIAL CARD   50.00
9. IBM PARALLEL CARD   50.00

For the Apple or compatible:
1. SILENTYPE PRINTER W/CARD $100.00
   If interested in the IBM or Apple equipment, contact Dave Jameson at 386-6137 days or 376-2206 after work hours or weekends.

OPORTUNITY FOR WRITERS

Are you interested in being a co-author for a potential IBM book? Do you have a draft geared to business or other professionals? Do you have an idea for upgrading an existing IBM book? If so, contact Norma Vidinoff, 2253 Spinnaker Circle, Longmont, Colorado 80501 or call (303) 678-7534 between 6-7 PM.

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--------- FOR MEMBERS ONLY ---------
    CHRISTMAS PORTRAIT SPECIAL
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       ****** FOR SALE ******
APPLE  80-COLUMN  TEXT CARD for  the
Apple IIe,  complete with  document-
ation.  Fits in Aux #3 slot. This is
the  small card with  no  additional
memory aboard.  $40.00. Contact Rich
Chambers 939-9120.
-----------------------------------------
     **** COMPUTER SUPPLIES ****
Matrix  Design is  a  local  computer
mail order company.  They sell  both
software  and hardware and  normally
offer  computer supplies at  20% of
list.  They have offered our group a
discount  of 23% of list price.  For
more   information  contact  Robert
Young  at (208)385-0383 or write  to
them at:       Matrix Design
               814 Mc Kinley Street
               Boise, Idaho  83712
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   HALF PRICED HARDWARE AND SOFT
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that they have accumulated for  half
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   and Calc, with no mouse
8. Visi-Trend Plot
9. Cyllock File Security System
Interested  parties can contact  Bob
Flagg at Learned Mahn at 336-2281.
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        TECHNICAL WRITERS

     We now have these writers con-
tributing informational columns for
our newsletter.

            Rich Brown
         Systems Analyst

         Richard Chambers
       Computer Consultant

            Bob Flagg
       Programmer/Analyst

          Mike Hayhurst
      Lead Systems Programmer

           Mark McNee
       Programmer/Technician

          Allan Powell
        Computer Hobbiest

          Judy Robinett
           Statehouse

           Tim R. Wolf
            Programmer

We are very fortunate to have these
folks donating their expertise to
our PC group.

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United States _____

Washington, DC

    As a user of a personal computer for telecommunications, and
as a member of the new "electronic community," I wish to strongly
protest the current proposals for laws regulating electronic
Bulletin Board Systems.

    Recent negative publicity about a few such systems being
used to spread illegal long-distance access codes and stolen
credit card numbers has cast public doubt on our hobby. It is
time that the record is set straight.

    Electronic BBSs are the freest form of interpersonal
communications ever created. The people who use them do so as a
way of sharing their thoughts, ideas, and information on the
rapidly changing computer technology. Also shared are thoughts
and ideas about the world in general; many systems have ongoing
debates about National and world issues. Not since the days of
the American Revolution, when thoughts and ideas were first
spread around through pamphlets and flyers, has such a system of
rapid communication been developed.

    The vast majority of BBSes and their users are honest
people, who use this new technology in their work and as a hobby.
We should not be punished for the illegal actions the few
misguided people about whom there has been so much publicity.

    I therefore recommend that before any laws restricting the
use of BBSes are passed, input is received from the operators and
users of these systems. Representation of our interests in
promoting the freedom of speech we exercise on the BBSes is the
answer to reactionary laws.   I urge you to support our position
in this matter.

Sincerely,

_____

_____

_____